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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,771	02/28/2002	James D. Crumly	10015964-1	8952

7590 10/06/2005

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EXAMINER	
TESLOVICH, TAMARA	
ART UNIT	**PAPER NUMBER**
2137	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,771	CRUMLY ET AL.	
	Examiner	Art Unit	
	Tamara Teslovich	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2.28.02 9.8.03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

AT

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "at least substantially" in claim 12 is a relative term which renders the claim indefinite. The term "at least substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. It is a broad term. In re Nehrenberg, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). The court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the general guidelines contained in the specification. In re Mattison, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). The court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by

"substantially equal." Andrew Corp. v. Gabriel Electronics, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988). See MPEP 2173.05(b), part D.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-30 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,373,551 B2 by Joseph Manico et al. and further in view of Bruce Schneier's "Applied Cryptography".

As per claim 1, Manico discloses a method of encrypting an image produced from physical information, comprising digitizing spatially-distributed physical information to create a digital image of the information (col.4 lines 7-10, 22-26); digitizing a physical tag associated with the physical information (unique film id number) to create a digital tag, the digital tag being readable to identify a public key ("security code") (col.3 lines 26-29; col.4 lines 3-10); and reading the digital tag to identify the public key (col.4 lines 17-30).

Manico fails to disclose encrypting the digital image with the identified public key.

Schneier teaches a method of encrypting a digital image using a public key, to be decoded at a later time by a party in possession of the corresponding private key (pgs.31-32 reference "Communications using Public-Key Cryptography").

It would have been obvious to a person of ordinary skill in the area at the time of the invention to include within Manico's method of encrypting an image the public key method as described in Schneier to provide additional protection wherein only the party in possession of the private key, in this case the security code, is able to decode the image.

As per claim 2, Manico further discloses physically associating the physical tag with the physical information (col.3 lines 13-34).

As per claim 3, Manico further discloses including the physical information within a document, the document having a substrate that supports the physical information (col.3 lines 42-46).

As per claim 4, Manico further discloses including the physical tag on a label that is applied to the document that identifies the public key ("security code") (col.3 lines 13-34).

As per claim 5, Manico further discloses including a barcode within the physical tag (col.3 lines 44-46).

As per claim 6, Manico further discloses wherein the barcode is formed as a glyph code, and wherein the glyph code contains public-key identifying information ("security code") in a machine-readable graphic (col.3 lines 42-51; Figure 5 part 220).

As per claim 7, Manico further discloses wherein the physical tag carries the public key ("security code") (col.3 lines 13-34).

As per claim 8, Manico further discloses wherein the physical tag identifies a location on a digital storage medium, and wherein the location includes the public key ("security code") (col.4 lines 22-29).

As per claim 9, Manico further discloses sending the encrypted digital image from a sender to an address of a recipient, the address being identified by the physical tag (col.3 lines 11-25; col.4 lines 22-56).

As per claim 10, Schneier further discloses wherein sending transmitting a digital signature to the recipient, the digital signature being produced using a private key of the sender and relating to the digital image (pgs.34-41 reference "digital signature").

As per claim 11, Manico further discloses digitizing the physical tag is carried out during digitizing the physical information using a single digitizing mechanism (col.4 lines 7-10).

As per claim 12, Manico further discloses removing the digital tag at least substantially from the digital image before encrypting (see Fig.7 reference "Image Storage" and "ID#/Password Database").

As per claim 13, Manico discloses a method of sending an encrypted image of a document, comprising disposing a physical tag on a document, the physical tag having a code that carries a public key ("security code") (col.3 lines 13-34); digitizing the document to create a digital image that includes a digital representation of the code

(col.4 lines 7-10); and reading the digital representation of the code to obtain the public key (col.4 lines 7-10, 17-26).

Manico fails to disclose encrypting the digital image with the obtained public key and sending the encrypted image to a recipient that holds a private key, the private key forming a key pair with the public key.

Schneier teaches a method of encrypting a digital image using a public key, to be decoded at a later time by a party in possession of the corresponding private key (pgs.31-32 reference "Communications using Public-Key Cryptography").

It would have been obvious to a person of ordinary skill in the area at the time of the invention to include within Manico's method of encrypting an image the public key method as described in Schneier to provide additional protection wherein only the party in possession of the private key, in this case the security code, is able to decode the image.

As per claim 14; Manico further discloses wherein the code includes a barcode ("security code") (col.3 lines 13-34).

As per claim 15, Manico further discloses wherein the physical tag carries an address, the address corresponding to the recipient (col.3 lines 11-25; col.4 lines 22-56).

As per claim 16, Manico further discloses wherein the code is formed as a glyph code, and wherein the glyph code carries the public key ("security code") in a machine-readable graphic (col.3 lines 42-51; Figure 5 part 220).

As per claim 17, Manico further discloses wherein the physical tag is included on an adhesive label, and wherein disposing includes applying the adhesive label to the document.

As per claim 18, Manico discloses a device for encrypting an image produced from spatially-distributed physical information, the device comprising:

at least one digitizing mechanism adapted to digitize spatially-distributed physical information to create a digital image (col.4 lines 7-10, 22-26), and to digitize a physical tag associated with the physical information ("unique film id number") (col.3 lines 26-29; col.4 lines 3-10) to create a digital tag, the digital tag being readable to identify a public key ("security code") (col.4 lines 17-30); and a processor operatively connected to the digitizing mechanism and adapted to receive the digital image and digital tag from the at least one digitizing mechanism, and to read the digital tag to identify the public key (col.4 lines 17-30).

Manico fails to disclose wherein the device is capable of encrypting the image with the identified public key.

Schneier teaches a method of encrypting a digital image using a public key, to be decoded at a later time by a party in possession of the corresponding private key (pgs.31-32 reference "Communications using Public-Key Cryptography").

It would have been obvious to a person of ordinary skill in the area at the time of the invention to include within Manico's method of encrypting an image the public key method as described in Schneier to provide additional protection wherein only the party

in possession of the private key, in this case the security code, is able to decode the image.

As per claim 19, Manico further discloses wherein the physical information is included in a document, the document having a substrate that supports the physical information (col.3 lines 42-46).

As per claim 20, Manico further discloses wherein the physical tag is included on a label that is applied to the document, the label having a code that identifies the public key ("security code") (col.3 lines 13-34).

As per claim 21, Manico further discloses wherein the at least one digitizing mechanism is a single mechanism that digitizes the physical tag during digitizing the physical information (col.4 lines 7-10).

As per claim 22, Manico further discloses wherein the physical tag carries an address of a recipient, and the processor is adapted to be connected to a network and to send the encrypted image to the address through the network (col.3 lines 11-25; col.4 lines 22-56).

As per claim 23, Manico further discloses wherein the physical tag includes a barcode that identifies the public key ("security code") (col.3 lines 44-46).

As per claim 24, Manico further discloses wherein the barcode is formed as a glyph code, and wherein the glyph code contains public-key identifying information ("security code") in a machine-readable graphic (col.3 lines 42-51; Figure 5 part 220).

As per claim 25, Manico further discloses wherein the physical tag carries the public key ("security code") (col.3 lines 13-34).

As per claim 26, Manico further discloses wherein the physical tag identifies a location on a digital storage medium, and wherein the location includes the public key ("security code") (col.4 lines 22-29).

As per claim 27, Manico discloses a program storage device readable by a processor, tangibly embodying a program of instructions executable by the processor to perform method steps for encrypting an image produced from physical information, comprising:

digitizing spatially-distributed physical information to create a digital image of the information (col.4 lines 7-10, 22-26);

digitizing a physical tag associated with the physical information (unique film id number) to create a digital tag, the digital tag being readable to identify a public key ("security code") (col.3 lines 26-29; col.4 lines 3-10); and reading the digital tag to identify the public key (col.4 lines 17-30).

Manico fails to disclose encrypting the digital image with the identified public key.

Schneier teaches a method of encrypting a digital image using a public key, to be decoded at a later time by a party in possession of the corresponding private key (pgs.31-32 reference "Communications using Public-Key Cryptography").

It would have been obvious to a person of ordinary skill in the area at the time of the invention to include within Manico's method of encrypting an image the public key method as described in Schneier to provide additional protection wherein only the party

in possession of the private key, in this case the security code, is able to decode the image.

As per claim 28, Manico further discloses wherein the physical information is included in a document, the document having a substrate that supports the physical information (col.3 lines 42-46).

As per claim 29, Manico further discloses wherein the physical tag is included on a label that is applied to the document (col.3 lines 13-34).

As per claim 30, Manico further discloses wherein the physical tag includes a barcode that identifies the public key ("security code") (col.3 lines 44-46).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara Teslovich whose telephone number is (571) 272-4241. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. Teslovich
September 22, 2005

MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137